

### **Abstract of the Disclosure**

An air throttle body assembly having an integrated electronic control unit, ECU, is part of robust and compact electronic fuel injection system of a combustion engine. The ECU has an internal heat sensitive microprocessor located in an environmentally protected inner compartment of the ECU defined between an external surface of thermally conductive throttle body and a circuit board of the ECU. The throttle body has a through air passage for flowing of combustion air into the piston cylinder. The relatively cool and non-laminar flow of air also serves to cool the inner compartment of the ECU through the throttle body thus protecting the microprocessor from overheating. Moreover, a thermally conductive heat sink member of the ECU is exposed within the inner compartment and directly engages various heat producing transistors for transfer of heat by thermal conduction away from internal circuitry an into the surrounding environment outward from the throttle body assembly.